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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/158,549	09/22/1998	JOHN S. HENDRICKS	5515	4086

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MOSER, PATTERSON & SHERIDAN L.L.P.  
595 SHREWSBURY AVE, STE 100  
FIRST FLOOR  
SHREWSBURY, NJ 07702

EXAMINER

BROWN, RUEBEN M

ART UNIT PAPER NUMBER

2611

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/158,549	<b>Applicant(s)</b> HENDRICKS ET AL.	
	<b>Examiner</b> Reuben M. Brown	<b>Art Unit</b> 2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 12 August 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 16-29 and 31-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-29 and 31-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 8/12/2004 have been fully considered but are moot in view of the new grounds of rejection. Also, applicant argues that Hedger does not teach interaction with on-line applications. First of all, the primary reference, Florin clearly discloses a subscriber interaction with on-line applications, including ordering programming and shopping (Fig. 18, Fig. 31; Fig. 36 & Fig. 45-46).

Florin, simply lacks disclosing a textual input. However, for instance when using e-mail and many other on-line applications, one of ordinary skill in the art would have readily recognized the advantage of textual input, see Fig. 36. Turning to Hedger, the reference is clearly directed to subscriber interaction with programming/games transmitted to the subscriber's computer. Even if Hedger was limited to only local interaction, such an arrangement would still read on the recited subject matter. The claim does not require two-way interaction. Furthermore, even if Hedger did not read meet 'on-line' applications, as pointed out above, Florin clearly provides the teaching, while Hedger is merely relied upon to teach using a textual input to interact with textual information, transmitted to the subscriber.

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-6, 16-21, 27-29, 31-42 rejected under 35 U.S.C. 103(a) as being unpatentable over Florin, (U.S. Pat # 5,621,46), in view of Handelman, (U.S. Pat # 5,715,315) and Anzelone, (U.S. Pat # 5,162,979) and further in view of Hedger, (Broadcast Telesoftware: Experience ORACLE).

Considering claims 1, 41 & 42, the claimed hardware upgrade for enhancing the functionality of a set top box STB in a TV delivery system, such that each STB has a mailbox for receiving e-mail, Florin discloses an interactive CATV system that enables a subscriber to transmit/receive e-mail services at a audio-visual transceiver 54, i.e. STB, see Florin col. 22, lines 20-30. As for the step comprising an interface for providing an electrical connection to the STB, whereby the e-mail is transferred from the STB for processing and the processed e-mail is passed to the STB for display, Florin does not discuss any details of the processing of the e-mail services.

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However, the disclosure of Handelman teaches that e-mail data may be transmitted from the CATV interface unit 18 to an external memory unit 38, (Fig. 2; col. 6, lines 24-26). E-mail data then may be retrieved from external memory unit 38 passed through the STB and displayed on the TV receiver, col. 6, lines 38-45. It would have been obvious for one ordinary skill in the art at the time the invention was made to modify Florin with the teachings of Handelman, at least for the desirable advantage of making more memory available through the external memory unit.

The claimed memory for storing interactive programming instructions reads on Florin, col. 8, lines 52-55 and is necessarily included in Handelman, which is directed to a CATV system that enables subscribers interactivity, (col. 1, lines 25-30; col. 5, lines 40-45 & col. 9, lines 15-25). Moreover, Handelman discloses that the processor 34 controls the operation of the STB/CATV interface unit 18; see col. 6, lines 34-36.

Also the claimed at least one microprocessor connected to the memory and connected to the interface for accessing the stored interactive programming and for processing the e-mail to produce processed e-mail based on the stored interactive programming, Handelman does not show that the memory card includes a CPU. Nevertheless, Anzelone discloses a user computer system that includes processor card 10 that extends the capability of the computer by operating various additional processes, Abstract, col. 2, lines 31-45. Anzelone goes on to teach that these processor cards 10 include a microprocessor, which reads on the claimed subject matter, see col. 3, lines 33-55.

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It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Florin with the feature of placing a microprocessor and programming software on a plug-in card, at least for the desirable advantage of more independent modular systems, as taught by Anzelone (col. 2, lines 1-45).

As for the additionally amended claimed feature of textual interactivity with the on-line applications, Florin only discusses a numeric keypad, remote control 60, see col. 11, lines 41-67. Nevertheless, Hedger discloses the benefits of using a textual keyboard, instead of a numeric keypad; see page 422, section 4.1 and page 425, section 4.6. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Florin & Handelman, to use a textual keyboard for the desirable improvement of not inhibiting certain user responses that are textual in nature, as taught by Hedger.

Considering claims 2, 17, 28, 32 & 37, Handelman discloses that video data may be transmitted to the CATV unit 18 in MPEG format, which reads on digital video; see col. 6, lines 15-21. Also Florin discusses the use of digital video at col. 9, lines 35-40.

Considering claims 3 & 18, since the two known methods for data transmission are serial or parallel, Handelman utilizes either technique to transmit the data between the CATV unit 18 and external memory unit 38.

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Considering claims 4 & 19, the instant claim calls for subscriber input, including textual information that is used to produce the processed e-mail for display. Florin & Handelman discuss that a remote control is used to select an information display channel or non-CATV data display option. Moreover, Handelman teaches that the STB may be connected to a keyboard, thereby enabling the input of textual information.

Considering claims 5, 20, 33-35 & 38-40, Florin (col. 11, lines 29-40; col. 23, lines 60-66; col. 24, lines 11-65) & Handelman (col. 1, lines 61-67) disclose interfacing with on-line databases, interactive services and message services and using a telephone modem. Thus the two-way communication reads on the user communicating with an intermediate CATV headend or more central facility.

Considering claims 6 & 21, the claimed memory for storing the processed e-mail is met by the external memory unit 38 or internal memory unit 36 of Handelman; see Fig. 2, whereas Florin discusses the well-known utilization of a CPU 63 for controlling the set top box.

Considering claims 16, 31 & 36, the claimed method for enhancing the functionality of a STB comprises steps that correspond with subject matter mentioned above in the rejection of claim 1, and is likewise treated. As for the additional features recited in claim 36, all subject matter is necessarily included in Handelman.

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Considering claim 27, the claimed method steps of providing e-mail service to subscribers corresponds with subject matter mentioned above in the rejection of claim 1, and are likewise treated. Claim 27 includes the additional limitation of the menu control information being generated at an operations center and transmitted to the cable headend before transmission to the subscriber. Official Notice is taken that at the time the invention was made, it was known in the art to utilize intermediate CATV stations. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to operate the combination of Florin & Handelman in a manner wherein data generated at a central location and transmitted to an intermediate CATV headend, before transmission to the subscriber, at least for the purpose of dispersing the data to a wider range of subscribers, other than those on the range of a particular intermediate CATV headend.

Considering claim 29, the operation of the headend in Handelman reads on the recited subject matter.

Considering claims 42, the claimed elements of a hardware upgrade card for enhancing the functionality of a set top converter, corresponds with subject matter mentioned above in the rejection of claim 1, and is likewise treated.

4. Claims 7-10, 12-14 & 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kauffman, (U.S. Pat # 5,003,591), in view of Strubbe, (U.S. Pat # 5,223,924) and Hedger, (Broadcast Telesoftware: Experience ORACLE).



Considering claim 7, the amended claimed advanced STB for use with a TV program delivery system comprising memory for storing menu content information reads on Kauffman, (Abstract; col. 8, lines 31-33). Kauffman teaches that firmware that implements on-screen displays that includes menu information, may be downloaded and stored in memory at the user's CATV converter.

Kauffman also meets the additionally amended claimed feature of the terminal being capable of operating with an interactive e-mail service conducted from a cable headend, col. 8, lines 25-33.

As for the claimed receiver for receiving digitally compressed program signals and a control information stream, wherein the control information stream comprises a description of the contents of the program signals received with the control information stream, Kauffman teaches that the CATV converter receives programs signals in fixed length segment format, but does not explicitly state that they are received using digital compression, as recited in the claim. Nevertheless, Strubbe discloses transmission of program signals (such as TV program information) as digital transmission, col. 1, lines 45-65 & col. 2, lines 50-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Kauffman with the teachings of Strubbe, transmitting program signals as compressed digital data, at least for the well-known advantage of more efficient transmission of more data.

Furthermore, since Strubbe (col. 2, lines 50-67) teaches that the program signals (i.e., program material) may be transmitted in MPEG, along with data describing the program signals, (i.e., program material), the claimed feature of a control information stream comprising a description of contents of the program signals is also met by the reference.

The claimed signal processor connected to the memory and receiver for processing the control information stream to produce processed control information, such that the processed control information is used to update the stored menu content information, producing updated menu content information is met by the on-screen display driver 72 of Kauffman (col. 8, lines 19-33) & the processor 35 of Strubbe, (col. 4, lines 1-25).

The claimed generator connected to the memory for generating messages and menu displays using updated menu content information, such that the displays produce subscriber options for selection of other menu options and TV programs also reads on the on-screen display driver 72 of Kauffman (col. 8, lines 19-33) & the processor 35 of Strubbe, (col. 4, lines 1-25).

The claimed subscriber interface in communication with the generator for selecting messages, menus, TV programs or for entry of subscriber inputs is met by the keyboard 68 of Kauffman, (col. 8, lines 7-13).

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As for the claimed tuner for tuning to one of the digitally compressed signals to produce a TV program, the combination of Kauffman, (col. 6, lines 43-60) and Strubbe, (col. 3, lines 44-50) reads on the claimed feature.

The further amended claimed feature of memory for storing the interactive programming instructions and at least one processor connected to the memory for accessing the stored interactive instructions & for executing the stored interactive programming instructions to produce interactive signals that include e-mail, reads on the operation of the microprocessor 50 in Kauffman, see (col. 7, lines 5-25 & col. 8, lines 25-33).

As for the additionally amended claimed feature of textual interactivity with the on-line applications, Kauffman only discusses a numeric keypad, remote control. Nevertheless, Hedger discloses the benefits of using a textual keyboard, instead of a numeric keypad; see page 422, section 4.1 and page 425, section 4.6. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Kauffman & Strubbe, to use a textual keyboard for the desirable improvement of not inhibiting certain user responses that are textual in nature, as taught by Hedger.

Considering claims 8, 13 & 23, Strubbe teaches that programs signals may be transmitted in MPEG format, which reads on digital video.

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Considering claims 9 & 24, the second processor for processing the TV programs is broad enough to read on the descrambler 70 of Kauffman, (col. 8, lines 12-19) & the PIP circuit 30 of Strubbe.

Considering claims 10 & 25, Kauffman teaches that the subscriber is enabled to send e-mail messages, which reads on the claimed subject matter, col. 8, lines 26-31.

Considering claim 12, the claimed system to provide subscriber e-mail services with a remotely located computer system using a series of individual menus corresponds with subject matter mentioned above in the rejection of claim 7, and is likewise treated. As for the additionally claimed operations center generating menu control information in digitally compressed form, transmitting the menu control information and cable headend for receiving and transmitting menu control information to at least one terminal, the claimed feature is met by the combination of Kauffman & Strubbe.

Kauffman teaches that firmware, which may include menu control information may be created at a Firmware Development System 16, which may or may not be located at the CATV headend, col. 5, lines 8-25. As pointed out in the rejection of claim 7, Strubbe teaches transmission of the data to subscribers in a digitally compressed format.

Considering claim 14, the cable headend of Kauffman necessary includes a controller for controlling e-mail services.

Considering claim 22, the claimed method for using an advanced STB with a TV delivery system, comprises steps that correspond with subject matter mentioned above in the rejection of claims 7, and is likewise treated.

5. Claims 11 & 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kauffman, Strubbe & Hedger in view of Remillard, (U.S. Pat # 5,561,709).

Considering claims 11 & 26, Kauffman teaches receiving e-mail service but does not disclose the use of a telephone modem for accessing additional networks. However, Remillard teaches using a modem to access a variety of services for a subscriber, including e-mail service; see col. 4, lines 40-55 & col. 6, lines 15-65. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Kauffman with the known feature of a modem, for the desirable benefit of providing the subscriber with a wider range of services, as taught by Remillard, (col. 1, lines 54-67).

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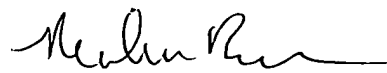
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Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Reuben M. Brown whose telephone number is (703)305-2399.  
The examiner can normally be reached on M-F(8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Christopher Grant can be reached on (703)730-4755. The fax phone numbers for the  
organization where this application or proceeding is assigned is (703) 872-9314 for regular  
communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the receptionist whose telephone number is (703)305-4700.

Reuben M. Brown

  
REUBEN M. BROWN  
PATENT EXAMINER